



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0766; Directorate Identifier 2013-NE-26-AD]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Canada Corp. Turboprop Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Pratt & Whitney Canada Corp. (P&WC) PT6A-114 and PT6A-114A turboprop engines. This proposed AD was prompted by several incidents of compressor turbine (CT) blade failure, including two fatalities, resulting in power loss and in-flight shutdown (IFSD) of the engine. This proposed AD would require initial and repetitive borescope inspections (BSIs) of CT blades, and the removal from service of blades that fail inspection. We are proposing this AD to prevent failure of CT blades, which could lead to damage to the engine or to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this proposed AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; phone: 800-268-8000; fax: 450-647-2888; Internet: www.pwc.ca. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800-647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New

England Executive Park, Burlington, MA 01803; phone: 781-238-7176; fax: 781-238-7199; email: james.lawrence@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0766; Directorate Identifier 2013-NE-26-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Discussion

Transport Canada Civil Aviation, which is the aviation authority for Canada, has issued Canada AD CF-2013-21, dated August 1, 2013, (referred to hereinafter as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

There have been a number of reported incidents where compressor turbine (CT) blade failures have caused power loss on PT6A-114 & PT6A-114A engines, resulting in in-flight shutdown (IFSD). Investigation by engine manufacturer Pratt & Whitney Canada (P&WC) has determined that when operated at high power and high temperature settings, the subject CT blades are prone to crack/fracture as result of creep and/or sulfidation.

You may obtain further information by examining the MCAI in the AD docket. We are proposing this AD to prevent failure of CT blades, which could lead to damage to the engine or to the airplane.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of Canada and is approved for operation in the United States. Pursuant to our bilateral agreement with Canada, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by Transport Canada Civil Aviation and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require initial and repetitive BSI of CT blades and the removal from service of blades that fail the inspection.

Costs of Compliance

We estimate that this proposed AD affects 300 engines installed on aircraft of U.S. registry. We also estimate that it would take about 4 hours per engine to comply with this proposed AD. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$102,000.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This proposed regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Pratt & Whitney Canada Corp.: Docket No. FAA-2013-0766; Directorate Identifier 2013-NE-26-AD.

(a) Comments Due Date

We must receive comments by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Pratt & Whitney Canada Corp. (P&WC) PT6A-114 and PT6A-114A turboprop engines.

(d) Reason

This AD was prompted by several incidents of compressor turbine (CT) blade failure, including two fatalities, resulting in power loss and in-flight shutdown (IFSD) of the engine. We are issuing this AD to prevent failure of CT blades, which could lead to damage to the engine or to the airplane.

(e) Actions and Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) Within 150 operating hours after the effective date of this AD, perform a borescope inspection (BSI) of CT blades for engines with 500 or more hours time since new (TSN) that have not been previously inspected, or more than 500 flight hours time since last inspection (TSLI).

(2) Thereafter, repeat the inspection in paragraph (e)(1) of this AD within every additional 500 flight hours TSLI.

(3) During the next hot section inspection (HSI) after the effective date of this AD, replace the complete set of CT blades with blades eligible for installation.

(4) If CT blades listed in paragraphs (g)(1) or (g)(2) of this AD, are installed to comply with paragraph (e)(3) of this AD, you must still comply with the 500-hour TSLI repetitive inspection requirement of paragraph (e)(2) of this AD.

(f) Optional Terminating Action

Replacing all CT blades with new CT blades, P/N 3072791-01, and Disk Balance Assembly, P/N 3072801-01; or with new CT blades, P/N 3072791-02, and Disk Balance Assembly, P/N 3072801-02; is terminating action for this AD.

(g) Definition

CT blades eligible for installation are:

(1) New CT blades, other than those listed in paragraphs (g)(3) and (g)(4) of this AD;

(2) CT blades, other than those listed in paragraphs (g)(3) and (g)(4) of this AD, that have met the inspection requirements of paragraphs (e)(1) and (e)(2) of this AD;

(3) CT blade, P/N 3072791-01, and Disk Balance Assembly, P/N 3072801-01; and

(4) CT blade, P/N 3072791-02, and Disk Balance Assembly, P/N 3072801-02.

(h) Credit for Previous Actions

If you performed P&WC Service Bulletin (SB) No. PT6A-72-1669, Revision 9, dated June 28, 2013, or earlier versions, you have met the initial inspection requirements of this AD. However, you must still comply with the 500-hour TSLI repetitive inspection requirement of paragraph (e)(2) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(j) Related Information

(1) For more information about this AD, contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7176; fax: 781-238-7199; email: james.lawrence@faa.gov.

(2) Refer to Transport Canada Civil Aviation AD CF-2013-21, dated August 1, 2013, for more information. You may examine the AD on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2013-0766.

(3) For guidance on the initial and repetitive BSIs mandated by this AD, refer to P&WC SB No. PT6A-72-1669 and P&WC SB No. PT6A-72-1727, which are not incorporated by reference in this AD. The SBs can be obtained from Pratt & Whitney Canada Corp. using the contact information in paragraph (j)(4) of this AD.

(4) For service information identified in this AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; phone: 800-268-8000; fax: 450-647-2888; Internet: www.pwc.ca.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on October 7, 2013.

Colleen M. D'Alessandro,
Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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